

Krishi Vigyan Kendra, Barh, Patna

Contingency Crop Plan for Patna District

Strategies for weather related contingencies

1. (a) Drought

Condition				Suggested Contingency measures
Early season drought (delayed onset)	Major Farming situation	Normal Crop / Cropping system	Change in crop / cropping system including variety	Agronomic measures
Delay by 2 weeks 1st week of July	Upland	Rice –Wheat/ Vegetable-Vegetable/ Rice-Oilseeds/ Rice-Potato/ Rice Chickpea/ Rice-Vegetables	Rice: Sabour Harshit, Sabour Ardhjal, Sabour Deep, Swarn Shreya	• Direct sowing of rice can also be done • Prefer Staggered nursery raising • Millets can also be grown
	Medium Land	Rice –Wheat/ Rice –Pulses/ Rice –Mustard/ Rice –Vegetables/ Rice –Potato In diara land – Early Maize-Wheat/Chickpea/Linseed/ Forage crop/Potato/Sweet potato/ Fallow/ Vegetable particularly Parbal and cucurbits in rainfed condition	Rice: Sabour shree, Sabour Harshit, Rajendra Sweta Sabour Sona Saroj, Rajendra, Kasturi	• Direct seeding of drought tolerant varieties in dry soil in June/ July with pre-emergence herbicide application under sufficient soil moisture conditions. • Raise staggered community nursery preferably with medium duration varieties in mid and lowlands • Application of fertilizers especially phosphorous and potash to be ensured under late transplanted condition
	Lowland	Rice –Wheat/ Rice-Pulses/ Rice-Vegetable/ Rice-Mustard/ Rice-Potato Tal area – Chickpea/Lentil as pure and mixed crop with wheat. In irrigated areas rabi maize or wheat can also be grown	Rice- Sabour Sampanna, Sabour Mansoori, Sabour Kuwanr, Sabour Heera	• Interculture for timely weed control in direct seeded rice
Delay by 4 weeks 3rd week of July	Upland	Rice –Wheat/ Rice –Pulses/ Rice –Mustard/ Rice –Vegetable/ Rice –Potato	Rice- Prefer Medium to short duration varieties like Saroj (100-110d), Sabour Harshit, Sabour Ardhjal Blackgram- T-9, Pant 30 Maize – Deoki. Ganga -2	• Direct seeding of rice • Staggered nursery raising • Millets can also be sown
	Medium land	Rice –Wheat/ Rice –Pulses/ Rice –Mustard/ Rice –Vegetables/ Rice –Potato	Direct sowing or transplant 20d old seedlings with medium to short duration varieties	• Direct seeding of rice • Staggered nursery raising • Millets can also be sown

	Lowland	Rice –Wheat/ Rice-Pulses/ Rice-Vegetables/ Rice-Oilseed/ Rice-Potato	Rice: Rice- Sabour Sampanna, Sabour Mansoori, Sabour Kunwar, Sabour Heera	• Direct seeding of rice • Staggered nursery raising
Delay by 6 weeks 1st week of August	Upland	Rice –Wheat/ Rice –Pulses/ Rice –Mustard/ Rice –Vegetables/ Rice –Potato	Rice- Prefer short duration varieties like Saroj (100-110d), Sabour Harshit, Sabour Ardhjal Blackgram-30 , Pant Blackgram-19 Finger millet-DB-7, BR-5, BR-10, Coimbatore-1	• Direct seeding of Rice • Application of fertilizers especially phosphorous and potash to be ensured under late transplanted conditions • Life saving irrigation
	Medium Land	Rice –Wheat/ Rice-Chickpea/ Rice –Lentil		• Direct seeding of rice • Staggered nursery raising • Millets can also be sown
	Lowland	Rice –Wheat/ Rice-Lentil/ Rice- Chickpea		• Community nursery can be raised for quick availability of young seedlings for transplanting of medium duration varieties by first fortnight of August • Direct seedling of Rice • Raise staggered community nursery preferably with medium duration varieties in mid and lowlands • Apply basal dose of NPK to boost the early vegetative growth • Application of fertilizers especially phosphorous and potash to be ensured under late transplanted conditions • Life saving irrigation
Delay by 8 weeks 3rd week of August	Upland	Rice- Wheat/ Rice-Pulses/ Rice-Oilseeds/ Rice-Vegetables/ Rice-Potato		• Direct seeding of Rice • Application of fertilizers especially phosphorous and potash to be ensured under late transplanted conditions • Life saving irrigation
	Medium Land	Rice – Wheat/ Rice –Pulses/ Rice-Oilseeds/ Rice –Vegetables/ Rice -Potato	Rice- Sabour Harshit, Sabour Ardhjal, Swarn Shreya	• Direct seeding of rice • Staggered nursery raising • Millets can also be sown

			Direct seeded rice (DSR) with short duration (80-90 days) varieties	
	Lowland	Rice–Wheat/Rice–Oilseeds Rice–Vegetables/Rice–Potato/Rice–Lentil/Rice–Chickpea	Rice- Sabour Harshit, Sabour Ardhjal, Swarn Shreya Blackgram-30, Pant Blackgram-19 Finger millet-DB-7, BR-5, BR-10, Coimbatore-1	• Community nursery can be raised for quick availability of young seedlings for transplanting of medium duration varieties by first fortnight of August • Direct seedling of Rice • Raise staggered community nursery preferably with medium duration varieties in mid and lowlands • Apply basal dose of NPK to boost the early vegetative growth • Application of fertilizers especially phosphorous and potash to be ensured under late transplanted conditions Lifesaving irrigation

2. Unusual rains (untimely, unseasonal etc) (for both rainfed and irrigated situations)

Condition	Suggested contingency measure			
Continuous high rainfall in a short span leading to water logging	Vegetative stage	Vegetative stage	Crop maturity stage	Post harvest
Rice	• Drainage management • Gap filling, if required	• Drainage management • Subsequent crop like Toria may be taken if present crop is substantially damaged/affected	• Drainage management • Harvest at physiological maturity	• Proper drying • Safer storage and Transportation
Maize	• Drainage management • Gap filling, if needed • Resowing, if sequentially affected • Sowing on ridges and furrows should be adopted	• Drainage management • Alternative Rabi maize or other rabi crop if substantially damaged	• Drainage management • Harvest at physiological maturity	• Proper drying • Safer storage and Transportation
Pigeon pea	• Drainage management • Gap filling if needed • September sowing of Pigeon pea if Kharif Arhar is completely affected • Sowing on ridges and furrows should be adopted	• Drainage management		• Proper drying • Safer storage and Transportation

Horticulture				
Mango, Litchi, Guava, Papaya, Banana	• Drainage management • Gap filling • Replanting if completely damaged	• Drainage management	• Drenching with copper fungicides • Drainage management	

Contingent strategies for Livestock

Livestock

Feed and fodder availability	Before the event	During the event	After the event
	• Advance planning for cultivation of fodder • Storage of Improved Quality Fodder • Conservation & Storage of Feed & Fodder Hay & Silage • Maize- harvesting at well-developed cob. (b) Jowar - at flowering stage. Hay: – Bales of hay and other dry fodder should be stored in dry places at a height of last flood level and covered with Polyethylene sheet 4. Development & storage of :- (a) Complete Feed Block (CFB) (b) Urea-Molasses-Mineral-Block (U.M.M.B) 5. Development of Fodder Bank	1) Feeding of Complete Feed Block 2) Feeding of Urea-Molasses Mineral-Block & Fodder 3) Feeding of stored Hay/Silage/Improved Quality Fodder 4) Feeding of Tree leaves some of which are as follows: I. Bamboo leaves II. Neem III. Bargad IV. Peepal V. Seesam VI. Subabul Use of unconventional feed stuff: (i) Aquatic Plants – water hyacinth (ii) (ii) Lotus (iii) (ii) Aquatic weeds	1) Production of forage crops Balanced feeding of Animal supported with little higher concentrate mixture 2) Cultivation of fodder Rabi maize if water stagnated up to Nov/ December 3) Sorghum/Cowpea 4) Maize in September